

Carbon Sequestration Advisory Group

Meeting 3 Summary

MEETING INFORMATION

Date: July 9, 2020
Time: 9:00am – 3:00pm
Location: Zoom virtual meeting

9:00 AM: Opening remarks and introductions

- Welcome from Lenny Young
- CSAG Members in attendance (listed alphabetically by last name):

Patti Case, Green Diamond	David Diaz, University of Washington
Joseph Donnegan, US Forest Service	Ara Erickson, Weyerhaeuser
Kathleen Farley Wolf, King County	Indroneil Ganguly, University of Washington
John Henrikson, Wild Thyme Tree Farm	Theo Holt, The Nature Conservancy
Cherie Kearney, Columbia Land Trust	Mark McPherson, City Forest Credits
Gary Morishima, Quinault Indian Nation	John-O Niles, Salesforce (alternate for Max Scher)
Julius Pasay, The Climate Trust	Steve Rigdon, Yakama Tribe
Edie Sonne Hall, Three Trees Consulting	Jason Spadero, SDS Lumber
Skip Swenson, Forterra	Bill Turner, Sierra Pacific Industries
Mike Warjone, Port Blakely	Max Webster, Washington Environmental Council (alternate for Lisa Remlinger)
Mark Wishnie, BTG Pactual	Lenny Young, DNR (CSAG Chair)

- CSAG Staff:

Dan Siemann, DNR	Dan Stonington, DNR
Shelby Thomas, Ross Strategic	Rob Willis, Ross Strategic

- Other Attendees:

Mike Anderson, The Wilderness Society	Glenn Christensen, USFS-FIA (presenter)
Brian Cochrane, SCC	Grant Domke, USFS (presenter)
Ben Donatelle, RCO	Andrew Gray, USDA
Alison Halpern, SCC	Heath Heikkila, AFRC
Brian Kittler, American Forests (presenter)	Mike Nichols, USFS (presenter)
Gail Sandlin, WA Dept. of Ecology	Andrew Yost, Oregon Dept. of Forestry

9:20 AM: CSAG Context and Discussion

CSAG members responded to a discussion prompt: How might events that have transpired since our first meeting, including current circumstances with COVID-19 and Washington's response to it, affect the CSAG's process in fulfilling its proviso? Discussion themes and comments included:

- Resources to address carbon sequestration may be more limited due to financial constraints and the attention COVID-19 requires.
- Since the COVID-19 health crisis began, there has been a huge flow of people from urban to rural communities. Avoiding conversion of working lands to other uses may be increasingly important.
- CSAG needs to be strategic and focus on areas where a real difference can be made in a short amount of time. CSAG should focus on ensuring that incentives are accessible, scalable, and tailored to situations in which they can be most successful.
- Because state funding may be limited, market forces are even more critical to consider – How can the market help CSAG reach its goals?
- There is an opportunity to tie our work into moving toward a Green Recovery and articulate how sustainable green jobs with the right incentives can help us emerge from our multiple crises. There is also the context of historical injustices and the need to lift up diverse communities in a recovery that considers the environmental, social, economic, and spiritual health of our lands and people for today's generations and many into the future.
- CSAG should stay anchored in our original charge from the legislature and strive for unbiased and comprehensive understanding, as well as outcomes and next steps that are relevant and easy for legislators and others to understand.
- There is the context of new state emissions reduction goals from the Legislature, which also recognized a priority to increase carbon sequestration.

9:35 AM: Carbon Inventories Work Session

- Inventory Incubator Team (IT) members shared their takeaways from the IT meetings between CSAG meetings 2 and 3. The takeaways included:
 - *Add interpretation.* The HWP and forest ecosystem data can be confusing and IT members encouraged more interpretation of what the data mean.
 - *Relate to incentives discussion.* Potential incentives could inform what questions should be asked of the inventory data; CSAG can think about questions that relate to potential incentives that exist or need to be created.
 - *Consider existing policies and levers.* CSAG should think about how inventories are geared toward activities, policies, and levers that already exist when developing recommendations.
- Presentation 1: Harvested Wood Products Assessment for Washington – Preliminary Results
 - Mike Nichols, USFS, and Grant Domke, USFS, presented preliminary carbon inventory results associated with harvested wood products (HWP) in Washington. Glenn Christensen, USFS-FIA, compared the HWP results with the forest ecosystem carbon inventory results he shared at Meeting 1.
 - The presentation slides are available on the [CSAG website](#).
 - The question and answer session addressed:

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- Captured emissions from landfills are not included in HWP results (they would be in a landfill assessment); USFS does not have a way to track methane produced by wood products and how much of that methane gets captured for reuse.
- The model accounts for recycling, which is included in 'recaptured.'
- The change in the standing dead carbon pool between FIA periods and the decrease in down woody debris may be a legacy of what was there prior to these FIA measurements.
- The soil and forest floor estimates are modeled and are the same size as the standard error; FIA is not as confident in these estimates and there's a lot we don't know about soil carbon.
- The HWP model's production approach accounts for where the harvested trees for HWP are grown, not where the HWP are manufactured.
- Changes in the HWP pool reflect the transfer of new wood from the forest entering the cumulative HWP pool. A year in which the 'products in use' category of HWP is negative does not indicate that there is an emission from the forest in that year.

10:45 AM: 15-minute Break

11:00 AM: Carbon Inventories Work Session, cont'd

- Breakout Groups
 - The CSAG broke into three breakout groups (facilitated by Dan Siemann, Dan Stonington, and Rob Willis) to discuss two questions:
 - What observations do you have about the forest ecosystem and HWP inventory results?
 - What questions do you anticipate policy makers asking about these results?
 - The breakout group notes are available on the [CSAG website](#).
 - Themes that emerged from the three groups and the discussion that followed included:
 - *Clear interpretation of results.* Decision makers will be challenged with competing interests and needs so they need a clear, concise message about what the inventory results can and cannot tell us - the 'so what' aspect of inventories. Graphs, charts, or other graphics can help. So can highlighting numbers for which there is high certainty and confidence. Another idea was to display results like a 'nutrition label.'
 - *Sensitivity of results.* Understanding the sensitivity of the HWP and forest ecosystem results to various inputs could improve understanding of the results and also indicate the type of incentives, actions, or policies that could make the most difference for carbon.
 - *Variation by geography and ownership.* While it is important to keep results and interpretation clear and simple, results should also include enough nuance and detail to describe important trends and changes in carbon dynamics by region (east/west, ecoregion, etc) and by ownership. Understanding these variations can help to fine tune incentives and recommendations.
 - *Projections and scenarios.* The current inventories are carbon accounting tools and are based on measurements and modeling of past results. Building on this, policy makers are likely to ask for decision-making tools to guide decisions on the types of incentives that would be most beneficial. Projections and scenario development

could help us understand what is likely to happen under various policies or other changes. Projections and scenarios can also help identify potential unintended consequences and who the winners and losers may be with any given inventory improvement strategy or policy intervention.

- *Improvements to technical inventory methods.* Multiple potential improvements to technical inventory methods were suggested for exploration including intensifying the FIA plot grid in Washington, utilizing remote sensing in additional ways, and improving measurements about the disposition of products.

12:15 PM: 30-minute Lunch Break

12:45 PM: Barriers to Incentive-based Programs Work Session

- Brian Kittler, American Forests, presented an updated spreadsheet that separates incentive-based programs with and without an explicit carbon focus and identifies both common and specific barriers for the programs. The presentation included two preliminary recommendations developed by the Incentives IT:
 1. Support further analysis to identify useful information in addition to program barriers; and
 2. Turn the list into a resource for landowners.
- The CSAG discussed general reflections on common barriers as well as the two preliminary recommendations as a full group.
 - General reflections on common barriers included:
 - It would be worth distinguishing between barriers for programs that are pay for performance incentives as opposed to offset incentives or cost-share incentives.
 - The spreadsheet focuses on landowners and so it currently omits barriers for HWP such as public opposition to zoning codes that would allow more density in urban areas. This is a timely topic given the current context of trying to address historical disparities resulting from restrictive or exclusionary zoning.
 - The state could take action to address barriers to some incentive programs, but if there is a local implementation element as well, there may be additional barriers at the local level that also need to be addressed.
 - For CA market compliance offsets in Washington, three factors have served as barriers: a fear of invalidation of credits, the high cost of sequential sampling, and the clearcut size limit of 40 acres. Addressing these could increase adoption. Put another way, landowners need increased flexibility and increased accessibility to make offset projects work better for WA forests.
 - Discussion themes around the first recommendation included:
 - Further analysis should emphasize finding the tools that are working and identifying how we can improve, bolster, and fund them. Further analysis should go beyond a list of the barriers and ask what we can achieve and whether we are moving the needle.
 - Project examples will help put a finer point on what works and what doesn't.
 - Further analysis can identify how to create a mix of tools and resources for diverse user groups and diverse landowners.
 - A potential recommendation could be for the state to set up its own crediting system, standards, and registry. This could help create demand for carbon by adapting a system to fit the Washington context.

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- Setting up a new crediting system and registry is a complicated undertaking and there may be better options to pursue. These might include: increasing social license of managing forests; using innovative zoning tools to conserve resource lands but still allow some development in areas less valuable for natural resources; increasing carbon storage on forest land; preventing losses to mortality and fire; providing incentives for silvicultural practices that increase sequestration; or creating incentives for wood substitution in building materials.
- Discussion themes around the second recommendation included:
 - This recommendation has a bureaucratic aspect to it. We should consider the social and political barriers that landowners face. Landowners often access resources through relationships.
 - Landowners are also finding information online more than ever before. We should consider whether we can make this incentive program list available on line so that landowners can query what is applicable to them. Other examples of tools include American Forest Foundation's Wood Camp, and an online tool that Forterra is beta testing with partners in the Chehalis Basin: http://stg.forterra-chehalis.testcrafting.com/v5_0.html
 - The list may be better suited as a resource for intermediaries (e.g., industry associations or technical assistance providers) rather than landowners.
 - The list will be valuable for all types of landowners because they all face barriers.

2:05 PM: 15-minute Break

2:20 PM: Round Table Discussion

CSAG members discussed Incubator Team work to be done between Meetings 3 and 4. Ultimately, the group decided the two initial ITs focused on carbon inventories and barriers to incentive-based programs should continue and two additional ITs focused on wildfire emissions and non-forest ecosystems should form. Topics raised during the discussion included:

- The need to develop a final report relatively soon (by early November) and the benefits of dividing tasks and getting work done are worth the extra time. ITs were helpful and make space for bigger steps forward.
- Moving forward should not focus on additional work "massaging data" and should instead focus on framing questions to get to desired outcomes.
- The CSAG report content should be focused on the needs of the Legislature; it needs to synthesize the information, highlight the importance, and bring forward recommendations.
- The new ITs need to have specific tasks and a clear picture of how the information is going to come together in Meeting 4.

2:40 PM: Next steps

- CSAG regrouped to cover next steps and logistics for Meeting 4.
 - Meeting 4 will be on Friday, September 18, 2020. Anticipated meeting topics include:
 - IT work between Meetings 3 and 4
 - A draft Meeting 3 Summary will be distributed within ten business days. CSAG will discuss any needed changes and approve a final meeting summary at the group's fourth meeting.

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- All materials will be posted online on the CSAG website.
- ITs will convene between Meetings 3 and 4.
- The agenda for Meeting 4 will be distributed two weeks prior to the meeting.

2:45 PM: Adjourn

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Transcription of Substantive In-meeting Chat

09:22:37 From Gary Morishima, Quinault Mgt Center : Regarding current situation, anyone giving any thought as to how our work may fit into pressing for a green recovery?

09:24:09 From Patti Case, Green Diamond Resource Company : Great point, Gary.

09:24:43 From Joseph Donnegan USDA Forest Service : Economic recovery that benefits a diversity of communities.

09:24:50 From Gary Morishima, Quinault Mgt Center : COVID has severely disrupted economic and political systems. There's an opportunity to tie our work into moving toward a Green Recovery.

09:25:04 From Jason Spadaro (SDS Lumber Co) : budget realities and realms of possibility

09:25:15 From Max Webster, WEC : Passage of new state emissions reductions goals in the last legislative session which also recognized a state priority to increase carbon sequestration on natural and working lands through voluntary and incentive based programs

09:25:46 From Ara Erickson, Weyerhaeuser : Ensuring the work and outcomes are relevant and easy for legislators and others to understand and see the benefit and clear steps forward.

09:25:52 From Indroneil Ganguly, UW : Having an unbiased and comprehensive understanding associated with forest carbon issues, with regards to climate mitigation challenges.

09:25:59 From John-O Niles (Salesforce) : if anything we should be more ambitious and “aggressive” articulating how sustainable green jobs with the right incentives can help us emerge from our multiple crises. there are few other sectors where if we can get it right, we can progress on many fronts.

09:26:05 From Bill Turner Sierra Pacific Industries : Keeping working Forest and Ag. Lands as working forest and Ag. lands - The Why is because they are carbon sinks and the products they produce also sequester carbon and offset other construction materials that use more carbon.

09:26:07 From Skip Swenson, Forterra : Impacts to the state economy & how this relates to incentives. Also, at-risk populations for climate change / connections to health impacts from COVID-19

09:26:08 From Mike Warjone, Port Blakely : Lack of funding will require that we focus on data in hand in the short term

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09:26:17 From Julius Pasay : End goal of accessible and scalable solutions that are tailored to different community types who can participate in different ways in carbon sequestration.

09:26:27 From Lenny Young, DNR : While our ambient context is constantly shifting--and we must be mindful of these ongoing changes--our work needs to stay anchored to our original charge from the legislature.

09:26:32 From John Henrikson (WFFA - Small Forest Landowner) : Must define optimum forest management strategy for carbon sequestration.

09:26:35 From Jason Spadaro (SDS Lumber Co) : massive increase in conversion pressures on forestland due to Covid

09:26:50 From Steve Rigdon : Options sustaining Washington's complex multi-use of carbon sequestration in regards to environmental, social, economic, and spiritual health of our lands and people for today's generations and many into the future.

09:26:54 From Cherie Kearney : Incentives that prevent forestland conversion at least

09:27:25 From Patti Case, Green Diamond Resource Company : I think the market context is critical. In our work on sequestration incentives, we see some programs with high usage, others with very low usage. Has the market caught up with the program offered? Often that is the critical factor. As we consider this going forward, we need to use market forces because we will be dealing with limited funding for many years to come.

09:30:23 From David Diaz (UW) : Acknowledging legacies private and public abuse, particularly for black, indigenous, and other people of color is a necessary requirement for setting a meaningful course for new policies. In the forest context, this would include acknowledging historical land theft and degradation of forests. We are not operating in a historical vacuum.

09:31:45 From Gary Morishima, Quinault Mgt Center : I remain concerned about the narrow focus on sequestration. There are other opportunities to address GHG accumulation, such as CCS, material substitution, reduction of fossil fuel consumption (efficiency, electrification, etc.)

09:32:40 From Patti Case, Green Diamond Resource Company : This turns our thinking with respect to Growth Management on its head, but perhaps in a good way.

09:34:23 From Bill Turner Sierra Pacific Industries : With Covid we have seen big shifts in behaviors. Many of the behaviors have benefited the carbon picture. We will all need to be cognizant of our individual behaviors in what we use and how.

09:50:48 From Indroneil Ganguly, UW : UW has published data on WA harvested wood products mix. I don't quite agree with using OR data.

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09:50:54 From David Diaz : From conversations I've had with Oregon DEQ who participated in the Oregon version of this analysis, the disposition of wood in disposal sites was being quantified by the model.

09:51:33 From Andrew Yost : The model provides estimates for emissions with energy capture, from fuelwood, and emissions without energy capture.

09:55:11 From Gary Morishima, Quinault Mgt Center : Does the model account for recycling and conversion to other materials/uses?

09:57:12 From David Diaz : Related to Jason's question, is there any crediting given to emissions with energy capture for avoided natural gas utilization (e.g., at wood product processing facilities)?

09:58:35 From David Diaz : Or avoided emissions of other energy sources in general, not just natural gas.

10:01:35 From John-O Niles (Salesforce) : is the difference between CA and WA due to higher harvesting rates in WA? is that the primary driver?

10:01:44 From David Diaz : Would be interested to know whether those %s of fluxes in the pie chart are calculated for gross or net fluxes. That is, is percentage calculated based on total absolute value of fluxes from ecosystem and products?

10:05:24 From Bill Turner Sierra Pacific Industries : When salvage logging removals can be of dead trees. are some of the removals double counted?

10:09:16 From David Diaz : Do causes that don't include cutting represent data entry errors?

10:09:31 From David Diaz : e.g., "Undisturbed" cut?

10:09:53 From Gary Morishima, Quinault Mgt Center : Does "undisturbed" include reserved or restricted areas, such as parks, wilderness areas, etc?

10:13:00 From David Diaz : How are emissions from killed belowground biomass captured?

10:17:00 From David Diaz : particularly stumps and roots from trees that were killed by harvesting.

10:19:34 From Ara Erickson, Weyerhaeuser : @David Diaz - do you see the dead tree roots included in the table? Does that address your question?

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10:20:23 From David Diaz : Maybe, not sure how it's calculated. It's not clear what they could be measuring in the field. Seems like this implies instantaneous emissions of roots from harvested trees

10:21:03 From Ara Erickson, Weyerhaeuser : Agree completely. It would be super helpful if the data was presented with clear annotations/explanations.

10:21:13 From David Diaz : Because there wouldn't be standing live or dead trees measured in time 2 from which belowground biomass are estimated

10:29:40 From David Diaz : By "produced" they're referring to trees grown

10:29:48 From David Diaz : in the state

10:30:02 From David Diaz : not necessarily where the products are produced

10:35:17 From David Diaz : I think a flow chart would make this all stock and flux much easier to understand. Here's a good example:
https://www.nature.com/news/polopoly_fs/7.15455.1391781665!/image/Tree2.jpg_gen/derivatives/landscape_630/Tree2.jpg

10:35:26 From Ara Erickson, Weyerhaeuser : Edie can't see this comment, but I echo her comments re: written information and explanations. I believe our charge as advisory group members is to help DNR understand what improvements could be made to existing inventories (including gaps) and helping the Legislature understand the data moving forward.

10:37:16 From Andrew Yost : We will be integrating a Sankey Diagram for a flow chart in the output for the reprogrammed HWP C model.

10:39:09 From Brian Kittler : A few other off the shelf graphics that may be of use:
<https://www.fs.usda.gov/managing-land/sc/carbon>

12:00:49 From Julius Pasay : Improvement: Break it down by eastside v westside and ownership types

12:09:16 From Indroneil Ganguly, UW : agree with Gary's point

12:13:51 From Indroneil Ganguly, UW : i think Gary's point on separation rather than aggregation is critical.

12:15:18 From Patti Case, Green Diamond Resource Company : I think what I'm hearing is agreement that we want to participate fully in the OUTCOMES, particularly the report and the messaging to legislators. The smaller group format is critical to lively interchange, so perhaps thinking about incubator teams in that way would be helpful.

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12:49:11 From Dan Stonington, DNR : Breakout group #2 flagged that Mark Wishnie presented a helpful slide deck on forests, wood products, and climate last month. Here is the link: <https://www.canr.msu.edu/fccp/partners-and-projects/forest-climate-working-group-learning-series/2020%2006%2003%20FCWG%20Learning%20exchange.pdf>

12:56:13 From Indroneil Ganguly, UW : Brian, thanks for the spreadsheet. This is incredibly helpful.

13:12:56 From David Diaz (UW) : Would direct grants to forest projects like awards from California's GHG Reduction Fund or Conservation Stewardship Program fall under what is being called cost-share here? There is a family of pay-for- performance (estimated or observed) rather than pay-for-practice that isn't offsetting.

13:19:39 From David Diaz (UW) : general comment: worth being more precise when using the word "demand" to indicate who is demanding what from whom. For example, reforestation row on first page of this table had both "funding less than demand" under common barriers and "limited demand" under barriers to specific incentives. Seems like these could be referring to "landowner interest", "biological or technical potential" and "market demand for carbon credits"

13:25:20 From Skip Swenson, Forterra : Thanks Rob, if it's helpful I was trying to convey that--given this is going to the state legislature--additional common barriers not explicitly highlighted in the summary are (1) how some state programs are structured may the barrier (addressable at the state level) and (2) some programs may be state-enabled, but the barrier is local political will (which the state may or may not be able to address)

13:26:37 From Patti Case, Green Diamond Resource Company : One theme I'm seeing from both incubator groups is that there's a need for the complexity but that a report to the legislator is going to require the opposite.

13:40:38 From Gary Morishima, Quinault Mgt Center : Is there a way to integrate across the landscape? i.e., where and at what scale are the incentives being used and what is the impact? What would the impact of eliminating or alleviating the barriers?

13:50:16 From Max Webster, WEC : For me a question is how important is the transaction of the carbon accounting in an offset frame versus paying for certain practices that we know with reasonable certainty increase carbon and then evaluate the effectiveness of those practices through the FIA and similar inventory data?

14:00:33 From Bill Turner Sierra Pacific Industries : It's not just about the sequestration of C on the landscape, but also the HWP derived from those landscapes and encouraging the use of construction materials that best reduce C emissions and promote C sequestration.

14:04:58 From Gary Morishima, Quinault Mgt Center : Incentives need to be tailored to the needs of their customers - those who would benefit if the incentives were to be taken advantage of. Why shouldn't we look at increasing demand, e.g., something akin to the "energy

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star" rating for appliances - a "GHG star" system that would with the choices available - could be created to help inform architect, builders, and end consumers?

14:14:57 From Skip Swenson, Forterra : Related to the last conversation, specifically the creation of online tools for those working with landowners, attached is something we're beta testing with partners in the Chehalis Basin: http://stg.forterra-chehalis.testcrafting.com/v5_0.html The idea here is connect programs (akin to Brian's work) with specific geographies / conservation values.

14:26:16 From Max Webster, WEC : We've also been working on a similar type tool for Kitsap County that they would be able to access online, mostly trying to take information in my brain and make it more accessible to project developers

14:40:43 From Ara Erickson : @Skip - This tool is pretty amazing. Seems like a good opportunity to integrate with the incentives work somewhere, since both products seem to be publicly funded?

14:51:59 From Mark McPherson - City Forest Credits : Good meeting. I agree with Patti that a significant part of the work going forward is to frame recommendations.